

**HPNS Technical Team Meeting Agenda**  
**EPA Region 9**  
**75 Hawthorne Street, San Francisco, CA**  
**May 24, 2017 10:00 to ~4:00**

1. Welcome and check-in

**Navy BRAC** – Pat Brooks

**Navy BRAC Consultants** – Scott Hay, Kim Henderson, ~~Kathy Higley~~, Kira Sykes (phone)

**RASO** – Matt Slack

**EPA and consultants** – Karla Brasaemle, John Chesnutt, ~~Jana Dawson~~, David Kappelman, Lily Lee, ~~Lyndsey Nguyen~~, Anita Singh (phone)

**DTSC** – Nina Bacey, ~~Janet Naito~~

**CDPH** – Tracy Jue, Sheetal Singh

**City (includes OCII/SFDPH and consultants)** – Amy Brownell, Bob Burns, Christina Rain

**Water Board** – ~~Tina Low~~, ~~Tina Ures~~

2. Meeting Objective: Working meeting to evaluate HPNS survey units using the methods and procedures reviewed at the May 5th Tiger Team meeting.

- EPA requested some clarification on FRED and GIS.
  - i. The Team discussed the FRED database for soil and that as data are reviewed, minor updates are being made, updates can be provided as needed.
  - ii. The Team discussed the GIS data available. The survey unit shape file data was provided to EPA and they requested building shapefiles which was also provided. The individual sample location data is limited and what is available is from NIRIS.
- Matt provided a background of the work that Tetra Tech EC conducted to provide the Team an understanding of the conceptual site model and rationale for why the cleanup conducted was overly conservative:
  - i. The facility was created from fill with some background levels of radionuclides (e.g., naturally occurring radiological material [NORM]) and there were few areas/buildings where actual radiological material was released.
  - ii. The release criteria established were conservative, for example, for Cs-137, we now have a better understanding of the Cs-137 levels that constitute background (e.g., from nuclear fallout) vs. contamination at HPNS based on the large volume of data collected.
  - iii. The storm and sanitary sewer lines were removed because of documentation that Naval Radiological Defense Laboratory (NRDL) disposed of some waste in the drains. The surrounding soil was investigated and removed based on the potential for contamination to have leaked through the piping into the soil. Based on the large volume of data collected to-date, there are very few locations of actual contamination in surrounding soil.

- iv. The method used to analyze Ra-226 (186 keV peak) via the onsite lab resulted in data that was biased high but used to enable quick decision-making in the field. This was demonstrated by comparing the onsite lab's Ra-226 results compared to the offsite lab's Bi-214 results; the onsite lab's Ra-226 data was consistently biased high. Using the analytical results for Ra-226 resulted in false positives and the release criteria was exceeded compared to the more reliable 609 keV peak from the Bi-214 analysis.

- The team discussed the potential for establishing updated release criteria (e.g., update background values) based on all the soil data collected to-date.

### 3. Real-time Data Evaluation

- Parcel C Trench Unit 198

- i. The Team reviewed the data real-time and discussed the conclusion that the Ra-226 remediation and subsequent sampling was potentially unnecessary based on more reliable Bi-214 analytical results. The recommendation is to reanalyze the initial systematic samples from the archives (if available) to determine if the original Ra-226 results were biased high. Questions arose regarding documentation of the sampling locations and the process for Tetra Tech EC collecting samples per the work plan figures in the field and locations were not recorded using GPS or surveys. Pat will request the visual sampling plan (VSP) plots for the FSS samples from Tetra Tech EC.

- ◆ ~~Parcel C Trench Units 208, 232, or 336~~

- Random Trench Unit – Parcel G Trench Unit 99

- i. The Team reviewed the data real-time and discussed the Trench Unit where removals were based on Cs-137. Based on the time-series plots, Ac-228 and Bi-214 characterization samples show high outliers and Bi-214 has some negative results but there are not indications of data falsification based on these findings. The Team recommended that where Cs-137 is identified as the driver for removal actions, that graphs and plots also be generated for Cs-137.

### 4. Schedule and topics for future calls

- Next call: Tuesday 6/6, 1000-1100 AM PT

- Potential future topics:

- i. Former building sites update
- ii. Remediation recommendations; Ra-226 release criteria vs background
- iii. Buildings update (inside surfaces)